

(19) World Intellectual Property Organization
International Bureau



| COME BRINDER IN ELECTRO COLOR (IN 11 IN 18 BOTTO CRISTO CONT. CONT. CONT. CONT. CONT. CONT. CONT. CONT. CONT

(43) International Publication Date 3 July 2003 (03.07.2003)

PCT

(10) International Publication Number WO 03/053950 A1

- (51) International Patent Classification⁷:
- __
- (21) International Application Number: PCT/KR02/01540
- (22) International Filing Date: 13 August 2002 (13.08.2002)
- (25) Filing Language:

Korean

C07D 319/06

(26) Publication Language:

English

- (30) Priority Data: 2001/81659 20 December 2001 (20.12.2001) KR
- (71) Applicant (for all designated States except US): CHOONGWAE PHARMA CORPORATION [KR/KR]; 698, Sindaebang-dong, Dongjak-gu, 156-010 Seoul (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LEE, Inhee [KR/KR]; No. 130-606, Hwanggol Maeul Jugong Apartment, Yeongtong-dong, Padal-gu, 442-740 Suwon-si, Gyeonggi-do (KR). LEE, Seungjoo [KR/KR]; No. 404, Seongwon-jutaek, Ilwol-jigu, Guun-dong, Gwonseon-gu, 441-340 Suwon-si, Gyeonggi-do (KR).

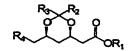
- (74) Agent: KOREANA PATENT FIRM; Dong-kyong Bldg. 824-19, Yoksam-dong, Kangnam-ku, 135-080 Seoul (KR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

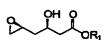
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance. Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NEW PROCESS FOR THE PREPARATION OF OPTICALLY ACTIVE 2-[6-(SUBSTITUTED ALKYL)-1,3-DIOXAN-4-YLJACETIC ACID DERIVATIVES



(I)



(II)



(III)

WO 03/05395(

(57) Abstract: The present invention relates to new process for preparing as a key chiral intermediate compound of formula (I) obtained from an epoxy- β -hydroxy carboxylic acid ester of formula (II) prepared from epoxide compound of formula (III), in which said compound of formula (I) is useful for preparing the therapeutic agent for hyperlipidemia, such as Astrovastatin and Fluvastatin. Wherein R_1 denotes a hydrogen atom, alkyl, aryl or alkylaryl, R_2 and R_3 which can be identical or different, are a lower alkyl or phenyl and are capable of forming a six-membered ring, R_4 stands for hydroxy, amino, alkylamino, azido, cyano, halogeno, aryloxy, alkyloxy, alkyloxy, alkyl, alkenyl, aryl, or aminomethyl, etc.